



Norman H. Bangarter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

January 19, 1989

Mr. Kim Mangum
Consultant for Co-Op Mining
388 East Boynton Road
Kaysville, Utah 84037

Dear Mr. Mangum:

Re: Deficient Response on Alternative Sediment Control Areas,
Co-Op Mining Company, Bear Canyon Mine, ACT/015/025-88D,
Folder #2, Emery County, Utah

Division Reclamation Specialist Bill Warmack has reviewed your submittal received by the Division on December 28, 1988, regarding alternative sediment control areas for the Bear Canyon Mine. His review, as noted in the attached memorandum, indicates there are deficiencies which must be addressed prior to approval of this permitting action.

The following items must be addressed and submitted to the Division to adequately address this amendment.

1. An updated drainage map which depicts the location of all alternative sediment control structures;
2. The specific sediment control measures to be installed should be flexible, with options available such as straw bale dikes, silt fences, berms, etc. The text in the Mining and Reclamation Plan (MRP) should be modified to indicate that one of these options would be utilized as is most appropriate;
3. The berm around the topsoil pile adjacent to the mine office/scale house must be included in the MRP text and depicted on the hydrology map indicated in Item #1;

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4. The Blind Canyon and Upper Bear Canyon Intake Portal areas must be assessed to determine what alternative control measures, if any, are required. It is recommended that representative(s) from Co-Op and Division Reclamation Specialist Bill Warmack review these two breakout areas in the next two weeks, and decide on appropriate sediment control measures. Once measures are identified in the field, they will need to be reflected in the Mining and Reclamation Plan.

In conclusion, please contact Bill Warmack to set up the field inspection of the two intake portals noted in Item #4 above. Your response to this letter with the appropriate updated materials (tables, text and maps) formatted for insertion into the Bear Canyon Mine Plan must be received by the Division no later than February 17, 1989.

Please feel free to contact Bill Warmack or myself if you have any questions.

Sincerely,



John J. Whitehead
Permit Supervisor/
Reclamation Hydrologist

djh
Attachment(s)
cc: B. Warmack
J. Helfrich
G. Hansen
E. Kingston
AT7/66-67



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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January 11, 1989

TO: John Whitehead, Permit Supervisor

FROM: Bill Warmack, Reclamation Specialist *BW*

RE: MRP Amendment Response to TDN #X-88-02-107-11TV3 and NOV
#88-30-6, Alternative Sediment Control Areas, CO-OP Mining
Company, Bear Canyon Mine, ACT/015/025-88D, Folder #3, Emery
County, Utah

Synopsis

The Division received an amendment proposal at the Salt Lake office on December 28, 1988, regarding several disturbed areas that were addressed in Ten-Day-Notice #X-88-02-107-11TV3 and State Violation #88-30-6-3. The proposal is in reference to the treatment of drainage from small disturbed areas that do not pass through a sedimentation pond:

1. outslope bank of upper storage yard
2. area north of No. 1 portal
3. ballpark/topsoil storage area
4. Blind Canyon Intake portal
5. Upper Bear Canyon Intake portal

For areas #1, 2, and 3, silt fences will be installed and maintained as alternative sediment controls. However, for the two intake breakouts (items #4 and 5), specific controls were not addressed since the operator's representative felt that the inward slope would prevent any disturbed runoff from leaving the portal areas.

Analysis

According to UMC 817.42, all surface drainage from a disturbed area shall be passed through a sedimentation pond or treatment facility before leaving the permit area. However, the Division may grant exemptions for small areas provided the operator demonstrates, by the use of alternative sediment control measures, that all applicable state and federal effluent limitations will be met or that the drainage will not degrade the quality of the receiving waters.

The operator's representative has committed to installing silt fences in strategic locations to treat the drainage from areas #1, 2, and 3 above. Although adequate, I feel Mr. Mangum is being too specific, especially since Mr. Hansen has made arrangements to install straw bales at the ballpark/topsoil area (conversation with Mr. Hansen on 1/6/89). Therefore, a more generic approach should be taken to list several possible approved alternatives from which an appropriate method will be chosen.

Concerning the two intake breakouts, Mr. Mangum has suggested that the disturbed drainage from these areas will not co-mingle with any

undisturbed drainage system primarily because the gradient slopes 2-2 1/2 percent inward towards the mine. However, no reference has been made as to the extent of the disturbed area (is there a pad present, or are the breakouts at the face of the cliff?). Also, would the additional influx of water hamper present mining operations and necessitate further pumping? (how much drainage would pass through the breakouts?)

Finally, one other area that was overlooked by myself and Mr. Mangum is the present topsoil pile across from the mine office/scale house. As defined, the topsoil pile is a disturbed area and should pass through a treatment facility. The topsoil pile is well vegetated and is contained within a berm, however, any drainage that should happen to leave the area would flow directly into Bear Creek via a culvert. Therefore, the topsoil pile should also be considered for an SAE as well even though alternative controls are in place.

Further, Mr. Mangum is reminded that all areas approved for SAE's must be maintained until it can be demonstrated that the applicable effluent limitations and/or vegetation rate of success are such that alternative sediment controls are no longer needed.

Recommendations

A. I recommend that a conditional approval be granted for areas #1, 2, and 3 with the following conditions:

1. Address the sediment control methods in a more general fashion unless silt fences are to be installed throughout the site
2. Supply an updated Hydrology map depicting the placement of the newly constructed sediment control structures.

B. I also recommend denial of the proposal for areas #4 and 5. The two breakouts have not been adequately addressed, specifically regarding the amount of drainage that will be anticipated and the amount of disturbance that has occurred. Cross sections and plan views of the areas should be submitted so that a consonant solution may be achieved.